

THE DISCOVERY OF *ECLIMUS HARRISI* IN THE WHITE MOUNTAINS, N. H.

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This interesting species has long been known only by the type, a male, in the Harris collection, in the Boston Society of Natural History. It bears the label, "H. Gray," without date or locality. It was described by Osten Sacken as *Epibates harrisi* in his *Western Diptera* (Bull. U. S. Geol. Survey, Vol. 3, p. 273, 1877). In the note following the description he says: "It is probably from the Northern United States as are nearly all the specimens in the collection." On page 271 in the table of species it is referred doubtfully to the "Atlantic States (?)," but in the table of contents where all the species are arranged systematically with localities, "Massachusetts" is given without a question. I am unable to find any authority for this and doubt if Osten Sacken made the table of contents.

During the meeting of the New England Federation of Natural History Societies at the Glen House the first week in July, frequent collecting trips were made to various parts of the mountains. On July 8, I captured a male of *Eclimus harrisi* on the flowers of the blackberry on the Mount Washington Road near the Raymond trail, just below the two-mile post, at an elevation of about 2,600 feet. This resembles the type in every respect except that its length is 12 mm. while the type measures 14 mm. A female of this species was taken by Mr. C. A. Frost, July 6, along the railway, above Base Station.

A REVIEW OF OUR SPECIES OF *TRIGONOMETOPUS* (DIPTERA; LAUXANIIDÆ).

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The Lauxaniid genus *Trigonometopus* is easily recognizable by the peculiar shape of the elongate head, triangular in profile, with the frons horizontal and the face strongly receding, the antennae inserted at the apex of the triangle. Four species have been

described from America, three of which are represented in the national collection by single specimens. Four other specimens in the collection belong to two species hitherto undescribed and are now characterized. The European species, *Trigonometopus frontalis* Meigen, frequently has the last section of the fourth vein appendiculate; none of the specimens before me show this peculiarity. The American species may be separated as follows:

1. Wings subhyaline, two round dots on outer section of third vein
punctipennis Coq.
Wings not so marked.....2
2. Wing pale along the costa, a dark streak medially.....3
Wings not so marked.....5
3. Abdomen mostly pale.....*vittatus* Loew
Abdomen dorsally black, marked medially with yellow.....4
4. Wings with a dark spot on the anterior cross-vein, median stripe of abdomen to tip.....*albifrons* sp. nov.
Wings without spot on anterior cross-vein, median stripe of abdomen abbreviated.....*angustipennis* sp. nov.
5. Wings whitish hyaline, reticulated with fine bars of black between the veins
reticulatus Johns.
Wings not reticulate, a dark shade along costa involving second vein
rotundicornis Will.

***Trigonometopus angustipennis* sp. nov.**

Male: Frons pale brownish, moderately broad, narrowing very slightly anteriorly, the part in front of the eyes not broadened; a dark patch clothed with dense black hairs laterally from eyes to antennæ; occiput dark brown along posterior margins of eyes, a black streak from eyes along lower margin of cheek. Antennæ ferruginous, the third joint compressed, in lateral view broad and rounded; arista long, pale at base, black beyond. Mesonotum and scutellum black, with three narrow, well-defined, longitudinal yellowish stripes, confluent on anterior margin, posteriorly continued over the scutellum. Pleuræ ocher yellow. Abdomen dorsally black, a median yellowish stripe extending to the apex of the fourth segment; sides and venter yellowish. Legs yellowish, the tarsi slightly infuscated. Wings rather narrow, the costal region to the middle of the submarginal cell pale yellowish, subhyaline, the involved veins pale; the rest of the wing smoky, a distinctly darker median streak involving the third and fourth veins and near the tip of the wing extending forward to the costa and involving the tip of marginal cell; all the veins within the smoky zone black, a dark shade along the fifth vein and posterior cross-vein. Length: Body about 4.5 mm., wing 4 mm.

Guadeloupe, West Indies, 3000 feet altitude, 30 July, 1905, one specimen (Aug. Busck).

Type: Cat. No. 18482, U. S. Nat. Mus.

In this species the ocular margins converge slightly anteriorly while in the two species which follow they are distinctly divergent; beyond the bulging eyes the frons is not markedly broadened, as is the case in the other species. The head is also slightly shorter in the portion beyond the eyes. In the single specimen the head is somewhat distorted, nevertheless the differences from *T. albifrons*, the species it most resembles, are obvious and abundant.

Trigonometopus albifrons sp. nov.

Male and female: Frons creamy white, very broad, widening anteriorly, a large dark brown spot densely clothed with black hairs laterally before eyes, scattered black hairs anteriorly diminishing to behind the middle; occiput dark brown along posterior margins of eyes to the cheeks, a dark streak from the eye along the lower margin of the cheek, face white, nearly flat. Antennæ whitish, the third joint tinged with ferruginous, compressed beyond its base, in profile broad and rounded; arista very long, pale near base, black beyond. Thorax narrow; mesonotum broadly blackish brown at the sides, a median yellowish zone occupying nearly half its width and divided by two ill-defined dark stripes into three pale longitudinal stripes. Scutellum blackish brown, with a narrow median and less distinct lateral yellowish stripes. Pleuræ pale yellowish, infuscated on the mesosternum. Abdomen dorsally black, with pale lateral incisions and a median yellowish stripe extending its entire length; venter pale. Legs pale yellowish, the bristles black; tarsi very slightly infuscated. Wings rather broad, the costal region to the middle of the submarginal cell pale yellow, semi-opaque and with the veins pale; posterior portion of wing tinged with grey and with all the veins behind the second black, a darker shade about the cross-veins and broadly along the third vein, particularly distally where it is abruptly produced to the anterior margin at the tip of the second vein. Halteres pale, with infuscated knobs. Length: Body about 4.2 mm., wing 3.5 mm.

San Marcos, Nicaragua, 2 specimens (C. F. Baker); *Cacao, Trece Aguas, Alta Vera Paz, Guatemala*, 30 March, 1906, one specimen (Schwarz and Barber).

Type: Cat. No 18481, U. S. Nat. Mus.

The specimen from Guatemala differs in some respects. On the wings the anterior expansion of the dark shade reaches the costa before the end of the second vein, thus involving the tip of the marginal cell; the portion of the second vein within the dark shade is black. I attribute no significance to this difference, as the two specimens from Nicaragua, which are surely conspecific, show variation in this respect. In one the dark shade reaches the costa at the tip of the second vein, in the other the pale costal zone extends a short distance beyond the end of the second vein.

Trigonometopus vittatus Loew.

A single specimen before me, taken by Mrs. A. T. Slosson at Biscayne Bay, Florida, agrees with Loew's description in most particulars. The wing coloration indicated by Loew is like that of the species just described. In the present specimen the difference between the yellowish anterior portion of the wing and the smoky posterior portion is but weakly indicated; the dark shade appears to begin behind the third vein, instead of in front of it, thus leaving a pale streak along the anterior margin of the first posterior cell. No trace of the distal extension of the dark shade to the costa at the tip of the second vein, as indicated by Loew, is perceptible, nor is there any strong contrast in the coloration of the veins in the two regions. Another difference occurs in the coloration of the abdomen; this may, however, be due largely to the condition of the specimens, since the insect is said to have an entirely pale abdomen in life. In Loew's specimen the abdominal segments are said to have basal dark bands, while in the specimen before me these bands are apical. It is possible that the Florida specimen represents a distinct species, but the variability shown by the three specimens of *T. albifrons*, and the paucity of material, indicate a conservative course.

PROTHETELY IN THE LARVA OF *PHOTURIS PENNSYLVANICA* DE GEER.

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The term prothetely ($\pi\rho\theta\epsilon\lambda\nu$, to run before, and $\tau\acute{\epsilon}\lambda\omicron\varsigma$, completion) was proposed by Kolbe in 1903, who applied it to that condition found in insect larvæ in which the imaginal discs have developed with abnormal rapidity resulting in the production of larvæ with pupal or imaginal characters.

Prothetely, though not of common occurrence, has been noted chiefly in coleopterous larvæ, being there represented by external wing-pads, adult legs, additional antennal joints, modified mouth-parts, abdominal tergites, etc., one or several of these peculiarities occurring in a single larva.